

Amendments to the Claims

The listing of claims below will replace all prior versions and listings of claims in the present application.

Claim Listing

1 1. (Currently Amended) A method comprising:
 2 collecting network traffic data wherein said collecting comprises
 3 receiving a group of information,
 4 determining whether to process the group of information for network traffic data
 5 collection, wherein
 6 said determining is performed according to a sampling algorithm,
 7 processing the group of information for network traffic data collection if the
 8 determination is to process the group of information, wherein the
 9 processing further comprises:
 10 creating a traffic information packet, wherein the traffic information
 11 packet includes a sampling mode field indicating the sampling
 12 algorithm used; and
 13 transmitting the traffic information packet to a network traffic data
 14 collection application; and
 15 forwarding the group of information to a destination.

1 2. (Original) The method of Claim 1 wherein the group of information is an IP
 2 packet.

1 3. (Canceled)

1 4. (Original) The method of Claim 1 wherein forwarding the group of
 2 information to the destination comprises:
 3 identifying the destination using a forwarding table;
 4 if the destination is in the forwarding table, automatically forwarding the group of
 5 information to the destination; and

6 otherwise sending the group of information to one or more processing engines to
7 determine routing to the destination and forwarding the group of
8 information according to the determined routing.

1 5. (Original) The method of Claim 1 wherein forwarding the group of
2 information to the destination is performed after processing the group of information.

1 6. (Previously Presented) The method of Claim 1 wherein the processing of the
2 group of information for network traffic data collection comprises:
3 determining if the group of information is part of one or more recorded traffic
4 flows;
5 creating a new entry in a table if the group of information is not part of the one or
6 more recorded traffic flows;
7 incrementing a field in an existing entry in the table if the group of information is
8 part of the one or more recorded traffic flows; and
9 time stamping the group of information.

1 7. (Cancelled)

1 8. (Currently Amended) The method of Claim 7 1 wherein the traffic
2 information packet comprises a header and one or more flow records.

1 9. (Currently Amended) An apparatus comprising:
2 means for receiving a group of information; and
3 means for collecting network traffic data said means for collecting comprising
4 means for determining whether to process the group of information for network
5 traffic data collection, wherein
6 the means for determining comprises a means for sampling,
7 means for processing the group of information for network traffic data collection
8 if the determination is to process the group of information, wherein the
9 means for processing further comprises:

10 a means for creating a traffic information packet, wherein the traffic
11 information packet includes a sampling mode field indicating a
12 sampling algorithm used; and
13 a means for transmitting the traffic information packet to a network traffic
14 data collection application; and
15 means for forwarding the group of information to a destination.

1 10. (Original) The apparatus of Claim 9 wherein the group of information is an
2 IP packet.

1 11. (Canceled)

1 12. (Original) The apparatus of Claim 9 wherein the means for forwarding the
2 group of information to the destination comprises:
3 means for identifying the destination using a forwarding table;
4 means for automatically forwarding the group of information to the destination if
5 the destination is in the forwarding table; and
6 means for sending the group of information to one or more processing engines to
7 determine routing to the destination and then forward the group of
8 information according to the determined routing otherwise.

1 13. (Previously Presented) The apparatus of Claim 9 wherein the means for
2 processing of the group of information for network traffic data collection comprises:
3 means for determining if the group of information is part of one or more recorded
4 traffic flows;
5 means for creating a new entry in a table if the group of information is not part of
6 the one or more recorded traffic flows;
7 means for incrementing a field in an existing entry in the table if the group of
8 information is part of the one or more recorded traffic flows; and
9 means for time stamping the group of information.

1 14. (Cancelled)

1 15. (Currently Amended) The apparatus of Claim 14 2 wherein the traffic
2 information packet comprises a header and one or more flow records.

1 16. (Currently Amended) A network node comprising:
2 a processing engine, wherein
3 the processing engine is configured to collect network traffic data; and
4 a memory coupled to the processing engine and the memory is configured to store
5 instructions configured to cause the processing engine to
6 receive a group of information;
7 determine whether to process the group of information for network traffic data
8 collection according to a sample algorithm;
9 process the group of information for network traffic data collection if the
10 determination is to process the group of information;
11 create a traffic information packet, wherein the traffic information packet includes
12 a sampling mode field indicating the sample algorithm used;
13 transmit the traffic information packet to a network traffic data collection
14 application; and
15 forward the group of information to the destination.

1 17. (Original) The network node of Claim 16 wherein the group of information
2 is an IP packet.

1 18. (Canceled)

1 19. (Original) The network node of Claim 16 wherein the set of instructions to
2 forward the group of information to the destination comprises a set of instructions to:
3 identify the destination using a forwarding table;
4 if the destination is in the forwarding table, automatically forward the group of
5 information to the destination; and

6 otherwise send the group of information to one or more processing engines to
7 determine routing to the destination and forward the group of information
8 according to the determined routing.

1 20. (Previously Presented) The network node of Claim 16 wherein the set of
2 instructions to process the group of information for network traffic data collection
3 comprises a set of instructions to:

4 determine if the group of information is part of one or more recorded traffic
5 flows;
6 create a new entry in a table if the group of information is not part of the one or
7 more recorded traffic flows;
8 increment a field in an existing entry in the table if the group of information is
9 part of the one or more recorded traffic flows; and
10 time stamp the group of information.

1 21. (Cancelled)

1 22. (Currently Amended) The network node of Claim ~~21~~ 16 wherein the traffic
2 information packet comprises a header and one or more flow records.

1 23. (Currently Amended) A router comprising:

2 one or more switch fabrics;
3 one or more destination line cards coupled to the one or more switch fabrics;
4 a source line card coupled to one of the one or more switch fabrics, wherein
5 the source line card receives a data packet;
6 a router processor, coupled to the switch fabric, and configured to
7 determine whether to process the data packet for network traffic data collection
8 according to a sample algorithm;
9 process the data packet for network traffic data collection if the determination is
10 to process the data packet;
11 create a traffic information packet, wherein the traffic information packet includes
12 a sampling mode field indicating the sample algorithm used;

13 transmit the traffic information packet to a network traffic data collection
14 application; and
15 forward the data packet to one of the one or more destination line cards.

1 24. (Previously Presented) The router of Claim 23 wherein the data packet is an
2 IP packet.

1 25. (Previously Presented) The router of Claim 23 wherein the router processor
2 is further configured to select the sample algorithm from one of linear sampling
3 exponential sampling, natural log sampling, burst sampling, and selecting the data packet
4 based on an examination of traffic attribute data in the data packet.

1 26. (Previously Presented) The router of Claim 23 wherein to forward the data
2 packet to one of the one or more destination line cards, the source line card is configured
3 to:
4 identify the one of the one or more destination line cards using a forwarding table;
5 if the one of the one or more destination line cards is in the forwarding table,
6 automatically forward the data packet to the one of the one or more
7 destination line cards; and
8 otherwise send the data packet to the router processor wherein the router
9 processor is configured to
10 determine routing to one of the one or more destination line cards, and
11 then forward the data packet according to the determined routing.

1 27. (Previously Presented) The router of Claim 26 wherein the router processor
2 is located on the source line card.

1 28. (Previously Presented) The router of Claim 23 wherein to process the data
2 packet for network traffic data collection, the source line card is configured to:
3 determine if the data packet is part of one or more recorded traffic flows;
4 create a new entry in a table if the data packet is not part of the one or more
5 recorded traffic flows;

6 increment a field in an existing entry in the table if the data packet is part of the
7 one or more recorded traffic flows; and
8 time stamp the data packet.

1 29. (Cancelled)

1 30. (Currently Amended) The router of Claim 29 23 wherein the traffic
2 information packet comprises a header and one or more flow records.

1 31. (Currently Amended) The method of Claim 1 wherein said collecting further
2 comprises:

3 selecting the ~~sample~~ sampling algorithm, wherein the ~~sample~~ sampling algorithm
4 is one of a linear, an exponential, a natural log, and a burst ~~sample~~
5 sampling algorithm, and examination of traffic attribute data in the group
6 of information.

1 32. (Previously Presented) The apparatus of Claim 9 wherein the means for
2 determining further comprises:

3 means for selecting the means for sampling from one of
4 a means for linear sampling,
5 a means for exponential sampling,
6 a means for natural log sampling,
7 a means for burst sampling, and
8 a means for examining traffic attribute data in the group of information.

1 33. (Previously Presented) The network node of Claim 16 having the memory
2 further configured to store instructions to select the sample algorithm from one of

3 a linear sampling algorithm,
4 an exponential sampling algorithm,
5 a natural log sampling algorithm,
6 a burst sampling algorithm, and

7 selecting the group of information based on an examination of traffic attribute
8 data in the group of information.

1 34. (Previously Presented) The network node of Claim 16 wherein the network
2 node further comprises:
3 a plurality of processing engines, wherein
4 the plurality of processing engines comprise the processing engine.

1 35. (New) The method of Claim 1 wherein the traffic information packet
2 includes a sampling interval field.

1 36. (New) The apparatus of Claim 9 wherein the traffic information packet
2 includes a sampling interval field.

1 37. (New) The network node of Claim 16 wherein the traffic information packet
2 includes a sampling interval field.

1 38. (New) The router of Claim 23 wherein the traffic information packet
2 includes a sampling interval field.